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Critical factors influencing effective of ict resources and capabilities (Article)

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Abstract

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Substantial research on the importance of strategic Information and Communication Technology (ICT) resources and capabilities for higher institution has mainly focused on developed countries. The results of these studies may not hold for developing nations and in particular, the Kingdom of Saudi Arabia (KSA). To address this gap, this research therefore, builds on theory of DeLone and McLean to examine the strategic links between the success of effective utilization of ICT Resources and ICT Capabilities of KSA higher institutions. Quantitative research methodology has been used. The study was conducted in a KSA context from a sample of 68 higher institutions. Nine main hypotheses were formulated and tested. Analysis of the data provided support for all the nine main hypotheses, except for relationship between “User Involvement and Effective utilization of ICT resources and capabilities. © 2005 – ongoing JATIT & LLS.

Author keywords

- Data
- Hardware
- ICT human capabilities
- Network
- Software

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References (55)

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1 Salem, M.I.
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(2014) *The International Business & Economics Research Journal (Online)*, 13, pp. 1047-1055. Cited 3 times.

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-
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Overcoming language barrier in healthcare settings using information and communication technologies

(2016) *Saudi Medical Journal*, 37 (3), p. 328.
<http://smj.psmmc.med.sa/index.php/smj/article/download/smj.2016.3.13706/7923>
doi: 10.15537/smj.2016.3.13706

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-

- ☐ 3 Alshehri, Z.F.
Integrating technology in mathematics education in the Saudi context". Global
(2014) *Educational Research Journal*, 2, pp. 50-53.
-

- ☐ 4 Almegran, A.M.A., Al-Yafei, A., Hashem, A.
Pilot Nationwide E-Learning Provision in the Kingdom of Saudi Arabia: Issues and Challenges
Technical paper, 2007
-

- ☐ 5 Ming, T.S., Hall, C., Azman, H., Joyes, G.
Supporting Smart School Teachers' Continuing Professional Development in and through ICT: A model for change
(2010) *International Journal of Education and Development Using Information and Communication Technology*, 6. Cited 3 times.
-

- ☐ 6 Albugarni, S., Ahmed, V.
Success factors for ICT implementation in Saudi secondary schools: From the perspective of ICT directors, head teachers, teachers and students
(2015) *International Journal of Education and Development Using Information and Communication Technology*, 11, pp. 36-41. Cited 3 times.
-

- ☐ 7 Alhabeeb, A., Rowley, J.
Critical success factors for eLearning in Saudi Arabian universities

(2017) *International Journal of Educational Management*, 31 (2), pp. 131-147. Cited 2 times.
<http://www.emeraldinsight.com/info/journals/ijem/ijem.jsp>
doi: 10.1108/IJEM-01-2016-0006

View at Publisher
-

- ☐ 8 DeLone, W.H., McLean, E.R.
Information systems success: The quest for the dependent variable

(1992) *Information Systems Research*, 3 (1), pp. 60-95. Cited 4615 times.
<http://isr.journal.informs.org/>
doi: 10.1287/isre.3.1.60

View at Publisher
-

- ☐ 9 Urbach, N., Smolnik, S., Riempp, G.
A Conceptual Model for Measuring the Effectiveness of Employee Portals
AMCIS 2009 Proceedings
-

- ☐ 10 DeLone, W.H., McLean, E.R.
The DeLone and McLean model of information systems success: A ten-year update

(2003) *Journal of Management Information Systems*, 19 (4), pp. 9-30. Cited 4033 times.

View at Publisher
-

-
- 11 Zaied, A.N.H.
An integrated success model for evaluating information system in public sectors
(2012) *Journal of Emerging Trends in Computing and Information Sciences*, 3, pp. 814-825. Cited 26 times.
-
- 12 Alshumaim, Y., Alhassan, R.
Current availability and use of ICT among secondary EFL teachers in Saudi Arabia: Possibilities and reality
(2010) *Global Learn*, 1, pp. 523-532. Cited 2 times.
-
- 13 Ageel, M.
The ICT proficiencies of university teachers in Saudi Arabia: A case study to identify challenges and encouragements
(2011) *Hummingbird*, (2), pp. 55-60.
-
- 14 Altameem, A.
What drives successful e-learning? an empirical investigation of the key technical issues in Saudi Arabian universities

(2013) *Journal of Theoretical and Applied Information Technology*, 53 (1), pp. 63-70. Cited 3 times.
<http://www.jatit.org/volumes/Vol53No1/9Vol53No1.pdf>
-
- 15 Althonayan, M., Papazafeiropoulou, A.
Evaluating the Performance of ERP Systems in Saudi Arabian Higher Education: A Stakeholders' Perspective
(2011) *Proceedings of the 2Nd International Conference on Information Management and Evaluation*, pp. 473-482. Cited 2 times.
ICIME 11
-
- 16 Ageel, M., Woollard, J.
(2012) *Enhancing University teachers' Information and Communication Technology Usage by Using a Virtual Learning Environment Training Course*
-
- 17 Asiri, M.J., Mahmud, R., Bakar, K.A., Ayub, A.F.M.
Role of attitude in utilization of Jusur LMS in Saudi Arabian universities
Procedia-Social and Behavioral Sciences
-
- 18 (2012) , 64, pp. 525-534.
-
- 19 Al-Maini, Y.H.
Using Technology in EFL in Saudi Arabia. Collaege of languages and translation, Saudi Arabia"
(2011) *Literacy Information and Computer Education Journal (LICEJ)*, 2, pp. 477-480. Cited 4 times.
-
- 20 Robertson, M., Al-Zahrani, A.
Self-efficacy and ICT integration into initial teacher education in Saudi Arabia: Matching policy with practice

(2012) *Australasian Journal of Educational Technology*, 28 (7), pp. 1136-1151. Cited 10 times.
<http://www.ascilite.org.au/ajet/ajet28/robertson.pdf>
-
- 21 Almalki, G., Williams, N.
A strategy to improve the usage of ICT in the Kingdom of Saudi Arabia primary school
(2012) *International Journal of Advanced Computer Science & Application*, 3. Cited 4 times.
-

-
- 22 Okolocha, C.C., Nwadiani, C.O.
Assessment of Utilization of ICT Resources in Teaching among Tertiary Institution Business Educators in South Nigeria
(2015) *Journal of Education and Learning*, 4, pp. 489-498.
-

- 23 Alturise, F., Calder, P.R., Wilkinson, B.
A comparison of ICT infrastructure in Saudi Arabian and Gulf states universities
(2016) *Proceedings of 2016 SAI Computing Conference, SAI 2016*, art. no. 7556066, pp. 764-769. Cited 3 times.
ISBN: 978-146738460-5
doi: 10.1109/SAI.2016.7556066

View at Publisher
-

- 24 Mazi, A.A., Abouammoh, A.M.
Development of higher education in the Kingdom of Saudi Arabia: Trends and strategies
(2009) *Proceedings from Global Higher Education Forum GHEF09*, pp. 13-16. Cited 2 times.
-

- 25 Alwani, A.E.S., Soomro, S.
S. "Barriers to effective use of information technology in science education at Yanbu Kingdom of Saudi Arabia"
(2010) *INTECH Open Access Publisher*
-

- 26 Lee, M.J., McLoughlin, C.
Teaching and learning in the Web 2.0 era: Empowering students through learner-generated content
(2007) *International Journal of Instructional Technology and Distance Learning*, 4, pp. 21-34. Cited 45 times.
-

- 27 Alarifi, S.A.
(2015) *The Quality of Saudi Accreditation Standards for Distance Learning: Benchmarking and Expert Validation*
-

- 28 Hussein, H.B.
Attitudes of Saudi universities faculty members towards using learning management system (JUSUR)
TOJET: The Turkish Online Journal of Educational
-

- 29 (2011) *Technolog*, 10, pp. 1090-1098.
-

- 30 Alharbi, S., Drew, S.
Using the technology acceptance model in understanding academics' behavioural intention to use learning management systems
(2014) *International Journal of Advanced Computer Science and Applications (IJACSA)*, 5, pp. 204-217. Cited 40 times.
-

- 31 Tondeur, J., Van Braak, J., Sang, G., Voogt, J., Fisser, P., Ottenbreit-Leftwich, A.
Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence
(2012) *Computers and Education*, 59 (1), pp. 134-144. Cited 132 times.
<http://www.journals.elsevier.com/computers-and-education/>
doi: 10.1016/j.compedu.2011.10.009

View at Publisher
-

- 32 Mikre, F.
The roles of information communication technologies in education: Review article with emphasis to the computer and internet
(2011) *Ethiopian Journal of Education and Sciences*, 6, pp. 109-126. Cited 13 times.

- 33 Borg, S., Alshumaimeri, Y.
University teacher educators' research engagement: Perspectives from Saudi Arabia
(2012) *Teaching and Teacher Education*, 28 (3), pp. 347-356. Cited 14 times.
doi: 10.1016/j.tate.2011.10.011

View at Publisher

- 34 Croteau, A.-M., Venkatesh, V., Beaudry, A., Rabah, J.
The role of information and communication technologies in university students' learning experience: The instructors' perspective
(2015) *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2015-March, art. no. 7069671, pp. 111-120. Cited 3 times.
ISBN: 978-147997367-5
doi: 10.1109/HICSS.2015.23

View at Publisher

- 35 Alsuraihi, M.D., Yaghi, K., Nassuora, A.B.
Knowledge Sharing Practices Among Saudi Academics: A Case Study Of King Abdulaziz University
(2016) *Journal of Current Research in Science*, 4, pp. 63-70.

- 36 Albalawi, A., Badawi, M.
Teachers' Perception of E-learning at the University of Tabuk
(2008) *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Association for the Advancement of Computing in Education (AACE)*, pp. 2434-2448. Cited 4 times.

- 37 Alhabeeb, A., Rowley, J.
Critical success factors for eLearning in Saudi Arabian universities
(2017) *International Journal of Educational Management*, 31 (2), pp. 131-147. Cited 2 times.
<http://www.emeraldinsight.com/info/journals/ijem/ijem.jsp>
doi: 10.1108/IJEM-01-2016-0006

View at Publisher

- 38 Xanthidis, D., Alali, A.S., Koutzampasopoulou, O.
Online socializing: How does it affect the information seeking behavior and the educational preferences in Saudi Arabia?
(2016) *Computers in Human Behavior*, 60, pp. 425-434. Cited 3 times.
doi: 10.1016/j.chb.2016.02.062

View at Publisher

- 39 Teece, D.J., Pisano, G., Shuen, A.
Dynamic capabilities and strategic management
(1997) *Strategic Management Journal*, 18 (7), pp. 509-533. Cited 10474 times.
<http://www.interscience.wiley.com/jpages/0143-2095>
doi: 10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

View at Publisher

- 40 Tallon, P.P., Kraemer, K.L.
Fact or fiction? A sensemaking perspective on the reality behind executives' perceptions of IT business value

(2007) *Journal of Management Information Systems*, 24 (1), pp. 13-54. Cited 73 times.
doi: 10.2753/MIS0742-1222240101

[View at Publisher](#)

- 41 Kumar, A., Maskara, S.
Overcoming language barrier in healthcare settings using information and communication technologies

(2016) *Saudi Medical Journal*, 37 (3), p. 328.
<http://smj.psmmc.med.sa/index.php/smj/article/download/smj.2016.3.13706/7923>
doi: 10.15537/smj.2016.3.13706

[View at Publisher](#)

- 42 Onasanya, S.A., Shehu, R.A., Oduwaiye, R.O., Shehu, L.A.
Higher institutions lecturers' attitude towards integration of ICT into teaching and research in Nigeria

(2010) *Research Journal of Information Technology*, 2 (1), pp. 1-10. Cited 6 times.
<http://docsdrive.com/pdfs/academicjournals/rjit/2010/1-10.pdf>
doi: 10.3923/rjit.2010.1.10

[View at Publisher](#)

- 43 Umar, I.N., Hassan, A.S.A.
Malaysian Teachers' Levels of ICT Integration and Its Perceived Impact on Teaching and Learning
(2015) *Procedia-Social and Behavioral Sciences*, 197. Cited 3 times.

- 44 Johnson, D.L., Maddux, C.D.
Introduction: Effectiveness of information technology
- (2007) *Computers in the Schools*, 24 (3-4), pp. 1-6. Cited 5 times.
doi: 10.1300/J025v24n03_01

[View at Publisher](#)

- 45 Nelson, R.R., Todd, P.A., Wixom, B.H.
Antecedents of information and system quality: An empirical examination within the context of data warehousing

(2005) *Journal of Management Information Systems*, 21 (4), pp. 199-235. Cited 370 times.

[View at Publisher](#)

- 46 Doll, W.J., Xia, W., Torkzadeh, G.
A confirmatory factor analysis of the end-user computing satisfaction instrument

(1994) *MIS Quarterly: Management Information Systems*, 18 (4), pp. 453-460. Cited 345 times.

[View at Publisher](#)

- 47 Tashkandi, A.N., Al-Jabri, I.M.
Cloud computing adoption by higher education institutions in Saudi Arabia: An exploratory study

(2015) *Cluster Computing*, 18 (4), pp. 1527-1537. Cited 12 times.
<http://www.kluweronline.com/issn/1386-7857>
doi: 10.1007/s10586-015-0490-4

[View at Publisher](#)

- 48 Bernroider, E.W.N.
IT governance for enterprise resource planning supported by the DeLone-McLean model of information systems success

(2008) *Information and Management*, 45 (5), pp. 257-269. Cited 102 times.
doi: 10.1016/j.im.2007.11.004

[View at Publisher](#)

- 49 Pomirleanu, N., John Mariadoss, B., Chennamaneni, P.R.
Managing service quality in high customer contact B2B services across domestic and international markets

(2016) *Industrial Marketing Management*, 55, pp. 131-143. Cited 2 times.
<http://www.elsevier.com/locate/indmarman>
doi: 10.1016/j.indmarman.2015.09.002

[View at Publisher](#)

- 50 Faiz, M.M.U., Al-Mutairi, M.S.
Engineering education for a resilient society: A case study of the kingdom of Saudi Arabia

(2015) *Proceedings of 2015 International Conference on Interactive Collaborative Learning, ICL 2015*, art. no. 7317983, pp. 82-88.
ISBN: 978-147998707-8
doi: 10.1109/ICL.2015.7317983

[View at Publisher](#)

- 51 Al-Adhaileh, M., Fridan, A.A.
A flexible distance education delivery model: Design and implementation at King Faisal University

(2015) *Proceedings - 2015 5th International Conference on e-Learning, ECONF 2015*, art. no. 7478251, pp. 312-315.
ISBN: 978-146739431-4
doi: 10.1109/ECONF.2015.55

[View at Publisher](#)

- 52 Hair, J.F., Black, W.C., Babin, R.E.
Anderson, and R.L. Tatham, "Multivariate data analysis
(2006) *Education*
6th Edition

- 53 Tabachnick, B.G., Fidell, L.S.
Technological organizational and environmental antecedents to Web service adoption
(2006) *Communications of the IIMA*, 6, pp. 144-175.

- 54 Gaskin, J.
Confirmatory factor analysis
(2012) *Gaskination's Statwiki*. Cited 2 times.

- 55 Abubakar, A.I., Mohamed, E.E.E., Zeki, A.M.
The Dynamics of Data Packet in Transmission Session

(2017) *IEEE Access*, 5, art. no. 7878579, pp. 4329-4339.
<http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=6287639>
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